3.6 Biology

The following discussion describes various biological resources in the project vicinity, including Wetlands and Waters of the United States, vegetation, general wildlife, and both threatened and endangered species.

3.6.1 Affected Environment

3.6.1.1 Overview

The Caltrans proposed project evaluated in this environmental document is completely within Santa Rosa, and on the Santa Rosa Plain, in Sonoma County. At one time, the Santa Rosa Plain was covered with native perennial grasslands that have been eliminated by development and urbanization (EIP Associates 1993). Today, the proposed project site is surrounded by roadways, residential buildings, and commercial properties. Therefore, the habitat value of the project area is limited to natural resources described here.

Vegetation throughout the project limits in the Route 101 corridor, its interchanges, and off-ramps can be grouped into several classifications:

- Landscape oleanders -- large flowering shrubs -- that exist in the median;
- Mature trees, which have trunks greater than 25 cm (10 in) in diameter, along the edge of the freeway; and
- Trees of relatively small size, which have trunks from 2.5 cm to 25 cm (one to 10 in) in diameter.

The oleanders extend in a tightly spaced row in the Route 101 median for approximately 3.2 linear km (2.0 linear mi) and occupy a total of approximately 1.2 hectares (2.9 acres). The mature trees consist of redwoods, oak trees, several Morraine locusts, Monterey pines, and sycamores. The small oaks are naturally occurring, growing from self-sown acorns. These smaller oaks form a loose group of shrub-like vegetation among the larger trees adjacent to Route 101 from College Avenue to 5th Street, primarily in the southbound direction.

Caltrans biologists used field surveys and records searches to determine which wildlife species make use of the project area. The Caltrans biologists did not observe any high-quality wildlife habitat in the project area. Also, Caltrans biologists consulted records of wildlife sightings in the area, known as the California Natural

Diversity Database (CNDDB), maintained by the California Department of Fish and Game, and species lists of endangered and threatened species provided by the Fish and Wildlife Service (FWS), U.S. Department of the Interior. The CNDDB and the FWS species lists did not reveal records of sensitive or listed wildlife species within the project area (Caltrans 2002a). FWS correspondence and species lists are provided in Appendix A.

At its southern end, the proposed project crosses Santa Rosa Creek. Construction of the Prince Memorial Greenway by the City of Santa Rosa, which runs adjacent to Santa Rosa Creek, has shaped the natural resource characteristics of this creek. The Prince Memorial Greenway connects the Vineyard Creek Hotel and Conference Center with Olive Park on the west side of Route 101. At upstream and downstream locations, Santa Rosa Creek contains natural substrates and supports riparian vegetation (vegetation that grows along river or creek banks). The vegetation found on the restored bank slopes of the Santa Rosa Creek consists of recently-planted trees with little canopy cover. The creek provides passage and potential food and water for California Coastal Chinook Salmon, Central California Coast Coho Salmon, and Central Coast Steelhead Trout, which are all classified as "threatened" under the federal Endangered Species Act. The north end of the proposed project crosses Paulin Creek. Both creeks fall under ACOE jurisdiction and have been confirmed by ACOE to be Waters of the U.S. that are not wetlands (Caltrans 2001g) (see Appendix A for ACOE correspondence).

3.6.1.2 Wetland Identification Process

Wetlands are defined by the ACOE as areas inundated and saturated by surface or groundwater at a frequency sufficient to support (under normal conditions) a prevalence of vegetation typically adapted for life in saturated soil conditions. The term "Waters of the U.S." has an elaborate and technical legal definition. Those water bodies defined as Waters of the U.S. in this project include Santa Rosa Creek and Paulin Creek.

Potential wetlands were mapped during intensive wetland delineation surveys, which included vegetation sampling and an assessment of soil and hydraulic conditions at points within each potential wetland (ACOE 1997). No ACOE jurisdictional wetlands were identified through these surveys and delineations.

3.6.1.3 Applicable Policies

California State Senate Concurrent Resolution No. 17 was filed with the Secretary of State on September 1, 1989. This resolution discusses the protection of native Valley/Coast Live oak woodlands with respect to land use/transportation planning projects that result in the loss of Valley/Coast Live oak woodland areas. Resolution No. 17 specifically calls for State agencies to "preserve and protect native oak woodlands to the maximum extent feasible," or "provide for replacement plantings where designated oak species are removed from oak woodlands."

To date, no other type of native tree species is protected or given similar special status (from a biological perspective) with regard to loss that is associated with any land use/transportation planning project.

3.6.2 Environmental Consequences

3.6.2.1 Wetlands and Waters of the U.S.

The proposed project includes the replacement and widening of the existing Route 101 structure that crosses over Santa Rosa Creek with a clear span structure. There would be no construction in Paulin Creek. Figure 3.6-1 shows the area of Santa Rosa Creek that is anticipated to be impacted by the proposed project, while Figure 3.6-2 shows the location of Paulin Creek in relation to Route 101.

The proposed project would not impact any ACOE jurisdictional wetlands. The construction activities associated with the new Santa Rosa Creek Bridge would require Nationwide Permits 14 and 33 from the ACOE. This permit is required for any temporary impact to Wetlands or Waters of the U.S. under Section 404 of the Clean Water Act. Caltrans must also obtain a Section 401 Water Quality Certification or Waiver from the Regional Water Quality Control Board before final design of the project would be completed. The Section 401 Certification or Waiver would describe all activities to be performed within the creek that could impact water quality. The Section 401 Certification or Waiver would also include all the Best Management Practices to be implemented to minimize or eliminate such impacts.

3.6.2.2 Vegetation

Of a total of approximately 550 trees in the project area, up to 295 mature trees [trunks greater than 25 cm (10 in) in diameter at breast height] could be lost. Of these 295 trees, about 65 trees would be lost due to temporary construction disturbance, and

another 230 would be removed to make way for the widened freeway. In addition, approximately 220 oaks of relatively small size [trunks from 2.5 to 25 cm (one to 10 in) in diameter at breast height growing from self-sown acorns] could be lost.

Of the estimated 295 mature trees to be removed, about 100 are redwoods. These 100 or so redwoods constitute approximately one third of an estimated total of 330 redwood trees inside the State right-of-way in the project area.

Additionally, due to widening in the median, the strip of oleanders extending for approximately 3.2 linear km (2.0 linear mi) and occupying a total of about 1.2 hectares (2.9 acres) would be removed.

Other landscaping plants such as shrubs and groundcover would also be lost. The breakdown of the loss of vegetation to permanent freeway features and to temporary construction disturbance is as follows:

- Approximately 2.2 to 2.4 hectares (5.5 to 6 acres) of vegetation would be permanently lost as a result of the widened freeway, reconstructed ramps, and soundwall construction. A preliminary estimate indicates that disturbance in these areas would result in the loss of approximately 230 trees of mature size including about 85 redwoods, 80 oaks, 11 Moraine locusts, and 10 sycamores, as well as ornamental shrubs and ground covers.
- In the southern segment of the proposed project at the Route 101/ SR-12 interchange, less than 1.2 hectares (3 acres) of landscape vegetation would be disturbed during construction of interchange improvements. Disturbance in this area would result in the loss of approximately 65 trees of mature size including 13 redwoods and 22 Monterey pines. Most of these are located along the connector ramp from eastbound SR-12 to southbound Route 101.

The proposed project is planned to prevent the introduction of invasive plant species pursuant to Executive Order 13112. Erosion control, landscaping, and habitat restoration features would not include the planting of any species from the California Department of Food and Agriculture's list of noxious weed species.

SONOMA 101 WIDENING

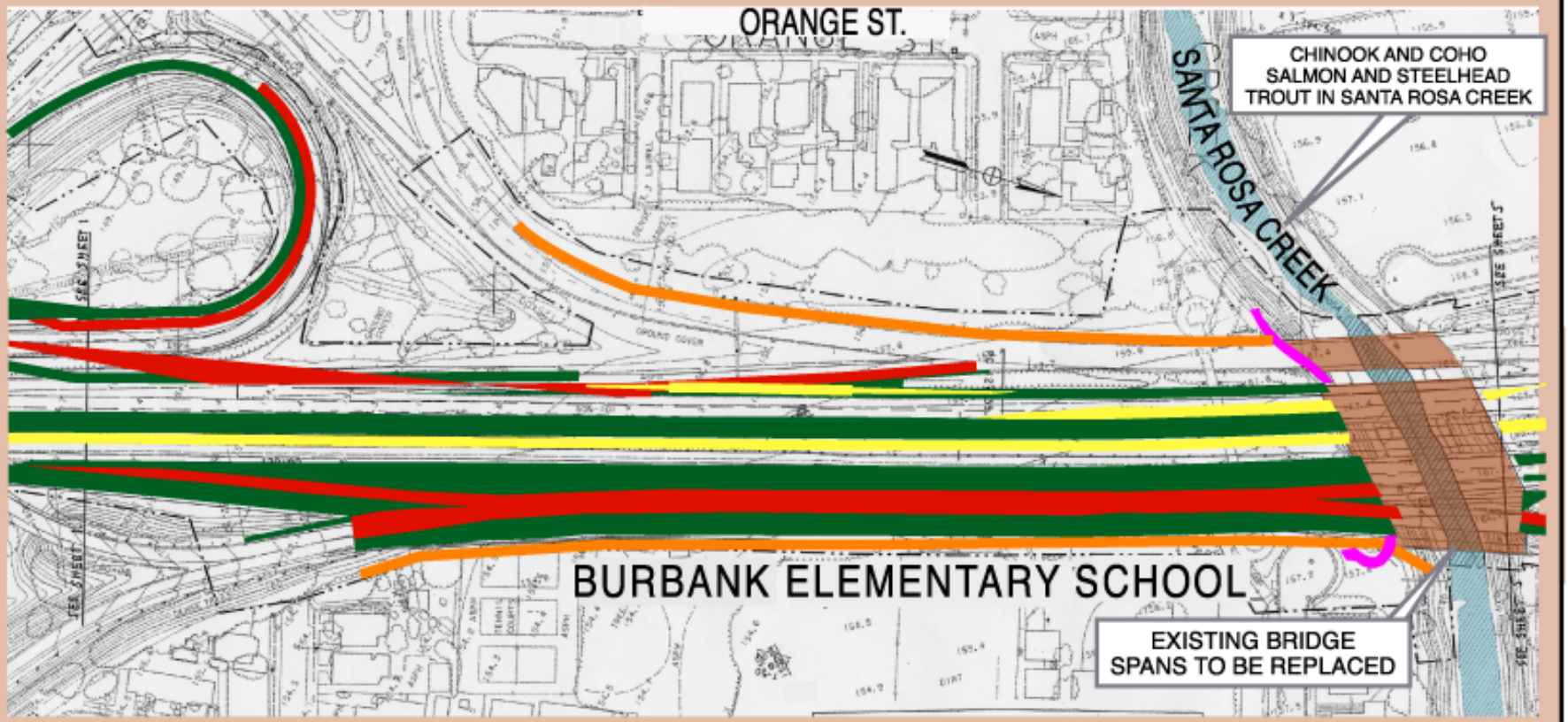

Figure 3.6-1: Waters of the U.S. and Federally Listed Species Associated wth Santa Rosa Creek

Caltrans

AudioVisual Multimedia Graphics CT1179 06/2003

SONOMA 101 WIDENING

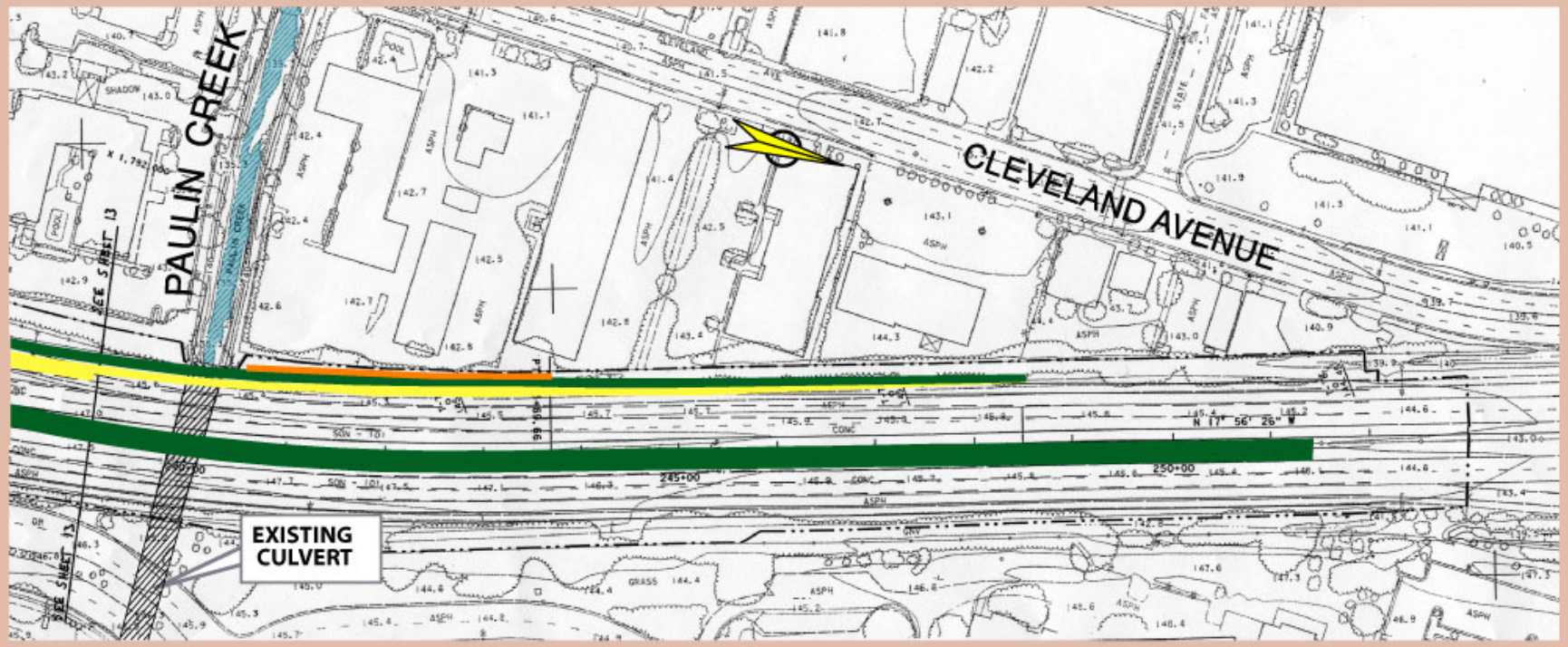

Figure 3.6-2: Waters of the U.S. Associated With Paulin Creek

LEGEND

- Project Boundary
- Waters of the US [Non-wetlands] (Sec. 404 of the CWA)
- Scale 1:2400
- Highway Pavement
- Ramps
- Shoulder (Roadway)
- Structures (Bridges)
- Pedestrian/Bike Path
- Proposed Soundwall

Caltrans

AudioVisual Multimedia Graphics CT1179 06/2003

3.6.2.3 Wildlife

Wildlife habitat is limited within the developed highway right-of-way, but nesting birds were observed during biological surveys. Birds use trees in the project area for nesting in the spring. Removing trees with active nests has potentially fatal results to the nestlings.

The proposed project is planned to prevent the introduction of invasive animal species pursuant to Executive Order 13112. No invasive animal species were identified that might be introduced through any project-related activities.

3.6.2.4 Threatened and Endangered Species

Three salmonid species -- California Coastal Chinook Salmon, Central California Coast Coho Salmon, and Central Coast Steelhead Trout -- are the only species found in the project area that are listed as either endangered or threatened (Caltrans 2002a). All three species are federally listed as "threatened." Under Section 7 of the Endangered Species Act, FHWA consulted with NOAA Fisheries to examine potential project impacts. Because dewatering during replacement of the Santa Rosa Creek bridge spans may may result in the need to relocate stranded salmonids, NOAA Fisheries prepared a Biological Opinion and issued an Incidental Take Statement for the project on December 11, 2003 (see Appendix K). Mitigation measures incorporated into the Biological Opinion are detailed in Section 3.6.3.4.

The project includes elements which will have positive effects on salmonid habitat. The bridge replacement over Santa Rosa Creek will create an increased shaded area in the creek that should prove beneficial to any fish species. In particular, the shading should cool the summer water temperature of Santa Rosa Creek, improving the creek as salmonid habitat. Caltrans also proposes to install several boulder weir habitat enhancement structures within Santa Rosa Creek. Installation of the weirs will improve conditions for fish migration a well as minimize the potential detrimental effects to the banks by keeping the flow in the center of the channel.

3.6.3 Mitigation Measures

3.6.3.1 Wetlands and Waters of the U.S.

Caltrans would comply with all conditions included in the Nationwide Permit to be obtained from the ACOE as well as conditions included in the Section 401 Water Quality Certification or Waiver from the Regional Water Quality Control Board.

3.6.3.2 Vegetation

Valley/Coast Live Oak Woodlands. Based upon consultation with the DFG, mitigation for impacts to oak woodlands would consist of finding a large enough parcel to accommodate oak replacement, replacing lost oaks at a ratio of one to one (one oak tree planted for each oak lost as a result of the proposed project). Caltrans would identify an open parcel at least 0.8 hectares (two acres), thereby providing for approximately 150 oaks to be planted on each acre. The parcel would be a natural area along, or within the immediate vicinity of, the proposed project alignment. The parcel would be selected only after concurrence from a Caltrans landscape architect, a Caltrans biologist, and DFG about its suitability for oak planting.

The new oak trees would be monitored annually for three years. For mitigation to be successful, at least 70 percent of the replacement oaks should survive after the first three years. If less than 70 percent of the oaks survive, additional oaks must be replanted and monitored for another three years in order to make up 70 percent of the oak trees lost due to the proposed project. If the cause of oak tree deaths could not be identified, Caltrans would consult with DFG to select appropriate native species for replacement. After the monitoring period, the mitigation site would be protected in perpetuity and preferably turned over to a land management organization.

Caltrans is currently investigating potential mitigation sites typically located within the historic range of oak woodland. Greater emphasis would be placed on areas connected to a wildlife migration corridor or riparian corridor. Areas commonly disturbed by fire, agriculture, or other activities should be avoided as potential replanting sites.

3.6.3.3 Wildlife

Measures to avoid impacts to nesting birds protected under the Migratory Bird Treaty Act (MBTA) would be implemented in consultation with DFG. Measures may include exclusion techniques as well as seasonal work windows. Caltrans shall not destroy active nests or living migratory birds of any age, and shall not take nests necessary to the well being of nestlings.

3.6.3.4 Threatened and Endangered Species

Requirements developed in consultation with DFG, ACOE, and NOAA Fisheries for work within Santa Rosa Creek would be followed before, throughout, and following construction of the new bridge and removal of the old bridge. The following Best Management Practices and project features included in NOAA Fisheries' Biological

Opinion will minimize impacts to salmonids and their habitat during construction of the proposed project:

- Central Coast steelhead migration occurs mainly between November and April. To minimize project impacts to sensitive fish species, the in-stream construction period will be limited to June 15 through October 31. All coffer dams, pipes, and construction materials/equipment will be removed from the creek corridor before October 31 with the creek bed in ready condition for winter storm flows.
- Any dewatering during the bridge construction will be temporary. The creek bed and creek banks will be restored to their pre-construction condition.
- At the very outset of work in Santa Rosa Creek, a high visibility construction fence outlining the limits of the work area will be installed. No work, storage, or other activities will occur outside the limits marked by the fence. The area outside the fence will be considered as an Environmentally Sensitive Area.
- A coffer dam will be utilized to act as a groundwater barrier that isolates the construction area from water running in Santa Rosa Creek. The coffer dam is designed to dramatically reduce the amount of groundwater getting into the construction site and therefore to reduce the amount of water that has to be pumped away. In addition to the coffer dam, a 61 cm (24 in) corrugated steel pipe will run through the work area and continue downstream of the construction zone. Together, the coffer dam and corrugated steel pipe ensure that water flow through the creek will not be impeded, while keeping the construction area dry. The coffer dam and corrugated steel pipe will be removed from the creek bed after completion of the project.
- A filter fabric will be placed in Santa Rosa Creek at locations where a coffer dam and corrugated steel pipe will be installed. After the fabric is placed, the coffer dam and pipe will be placed on top of it. The fabric ensures that sediments are caught and to remove as much material and sediment from the creek as possible. The fabric will extend above and below impacted areas and should be held down with properly sealed and tied sandbags.
- To improve Central Coast steelhead habitat, Caltrans will install three boulder weirs in Santa Rosa Creek between Route 101 and the A Street Bridge. The "V" shaped weirs will improve habitat complexity in the previously barren grouted reaches of the creek, improve conditions for fish migration, and minimize bank scouring by keeping flow in the center of the channel.
- Excess materials such as soil will be disposed of at an approved disposal site.
- Caltrans will provide a qualified fisheries biologist approved by NOAA Fisheries to capture and transport any Central Coast steelhead present within the project area to a safe location downstream of the project site. The biologist will document the findings in a short report for review by NOAA Fisheries staff.

3.7 Land Use, Planning, and Growth

In this section, the project study area land use and planning characteristics are briefly described. Potential impacts are discussed as well as mitigation measures, as necessary.

3.7.1 Affected Environment

3.7.1.1 Overview

The proposed project is located in downtown Santa Rosa and approximately 55 miles north of San Francisco, as shown on Figure 1-1. The project site is within the city limits of Santa Rosa in Sonoma County and is accessible via Route 101 and SR-12 as well as 3rd Street, 6th Street, College Avenue, and Steele Lane. Santa Rosa Creek and Paulin Creek traverse the project area from west to east, with Santa Rosa Creek at the southern end of the project area and Paulin Creek at the northern end.

Santa Rosa was incorporated in 1868 and has evolved into an active commercial, financial, medical, and industrial center within the San Francisco Bay Area. The traditional downtown area and the nearby Santa Rosa Junior College comprise approximately one-quarter of the commercial/office space within the City's Urban Growth Boundary (UGB). Approximately one half of Santa Rosa's commercial acreage is located in strip retail developments. A majority of the commercial land uses are located along Santa Rosa Avenue, Mendocino Avenue, Cleveland Avenue, Montgomery Drive, and Sebastopol Road. The industrial uses within the City are scattered along the edges, with the largest concentrations located southwest of downtown and northeast of downtown. The City's residential neighborhoods range from low density hillside development, to moderately high density development, to mixed-use development, with many of the new areas developed to meet the needs of the diversified population that has recently moved into the Santa Rosa area. Several large open space/parkland areas are located along the eastern edge of the City, in the hillside areas of Sonoma County, with Annadel State Park as the dominant feature. The Sonoma County Fairgrounds are located south of the downtown area and approximately one mile east of the Route 101/SR-12 interchange. The Charles M. Schulz Sonoma County Airport is located approximately seven miles northwest of the downtown area and is accessed off of Route 101. Within the immediate project area, the varied land uses adjacent to Route 101 are described below.

3.7.1.2 Existing Land Use in the Vicinity of the Proposed Project

Areas to the West. Cleveland Avenue and Davis Street lie immediately west of Route 101. The Railroad Square Historic Preservation District (which contains a collection of architecturally/historically significant buildings housing businesses adjacent to the existing NorthWestern Pacific Railroad tracks as well as a small community park) is located between 3rd Street and 6th Street. Assorted collections of light industrial/office land uses are between 9th Street and Range Avenue. Coddingtown Mall is located south of Steele Lane/Guerneville road.

Areas to the East. Morgan Street/Armory Drive/County Center Drive delineates the eastern border of the project site. Burbank Elementary School and Julliard Park are off of Sonoma Avenue. The 2nd Street Transit Mall is located in the downtown center of Santa Rosa, off of 2nd Street. The Santa Rosa Plaza Shopping Center and downtown area are located between 1st Street and 5th Street. The Saint Rose Historic Preservation District, located between Lincoln Street and 7th Street, contains a collection of residential homes that are considered architecturally/historically significant to the City. Santa Rosa Junior College and Santa Rosa High School are between Ridgeway Avenue and Elliot Avenue. North of Administration Drive, resides the Sonoma County Administration Center as well as Sonoma County Courthouse.

Areas to the North. Between Bicentennial Avenue and Mendocino Avenue exists the Kaiser Medical Center. North of Piner Road, light industrial/office/commercial land uses are located off of Airway Drive, Cleveland Avenue, and Fountain Grove Road.

Areas to the South. Residential areas are located south of SR-12 and west of Route 101, while commercial strip centers are located off of Santa Rosa Avenue. Adjacent to Sebastopol Road, between Stony Point Road and South Dutton Avenue, is a mixed use development.

3.7.1.3 Specific Projects Planned for the Proposed Project Area

As of August 2002, no substantial developments or specific projects are either under construction or review in close proximity to Route 101 (Ken MacNab, Santa Rosa City Planner, personal communication 2002). However, the new Vineyard Creek Hotel and Conference Center, located immediately north of the Santa Rosa Creek and adjacent to southbound Route 101, was completed in July 2002.

3.7.1.4 Growth Trends

In 1990, Santa Rosa voters passed a five year UGB around the City, while a similar 20 year UGB measure was approved in 1996. Both measures ensure that the current UGB will not drastically change by Year 2016. The UGB encompasses approximately 11,776 hectares (29,100 acres) of both incorporated and unincorporated land that could be potentially annexed into the City. Santa Rosa's current city limits contain approximately 11,534 hectares (25,800 acres). The UGB was established to gain control on the types and quantities of land uses constructed near Santa Rosa. To aid the UGB, Santa Rosa adopted a Growth Management Ordinance in 1992 to allow for the expansion of necessary public facilities to protect the City's social and economic values in existing and future residential and commercial development. The 1992 ordinance does not restrict employment growth; it does however establish a jobs/employed residents ratio of not to exceed 1:3. The jobs/employed residents ratio compares the number of jobs available within the City versus the number of employed residents who may fill jobs within or outside the City. The 1:3 ratio limit indicates that Santa Rosa will experience a net in-commuting (i.e., more jobs than employed residents) for the foreseeable future (Dyett & Bhatia 2001).

The 2000 Census shows that Sonoma County grew more than any other county in the Bay Area during the 1990s, with 18.1% increase in population from 388,222 in 1990 to 458,614 in 2000. By the year 2020 the population is expected to grow an additional 25% to 571,200. Santa Rosa is projected to grow by 72,505 people to 222,100 by Year 2025, a growth rate second among all Bay Area cities. Should the City approach 220,100 people by Year 2025, Santa Rosa will become the fifth most populous city in the nine county Bay Area region. Among mid-sized cities in the Bay Area (with populations between 100,000 and 300,000), Santa Rosa is expected to lead the region in overall job growth, adding 50,560 more jobs by Year 2025 for a total of 161,450 jobs (ABAG 2001). The town of Windsor, incorporated in 1992 making it a city, increased its population 70% from 13,371 residents in 1990 to 22,744 in 2000. The total number of people in Windsor is expected to increase 96% by the year 2020 to 40,500. It is important to note that the growth rates to present have occurred absent any significant highway improvements.

ABAG states that the North Bay counties (Sonoma, Marin, Napa, Solano) as well as Contra Costa County are predicted to face the highest percentage of growth in population and jobs between Year 2000 and Year 2025. With increases in both jobs and population, Sonoma County is anticipated to experience a large increase in the number of work trips staying within the County as well as an increase in the number

of trips out of the County by Year 2025 (ABAG 2001). Between Year 2000 and Year 2025, it is anticipated that the County population will increase 28.6 percent, an addition of 131,186 residents. An even larger increase in the number of jobs is forecast during the same time period. By Year 2025, 311,000 jobs are anticipated, an increase of 105,780 (a 51.4 percent increase) (ABAG 2001). Table 3.9-4 shows the anticipated increases in population, housing, and jobs from Year 2000 through Year 2025 for both the City and the County.

Table 3.9-4. Future Growth

Year	Population		Households		Total Jobs	
	Santa Rosa	Sonoma County	Santa Rosa	Sonoma County	Santa Rosa	Sonoma County
2000	147,595	458,614	56,036	172,403	110,890	205,220
2010	193,100	527,200	71,940	196,980	134,040	245,620
2025	220,100	589,800	82,860	222,410	161,450	311,000
% Change 2000 to 2010	30.8	15.0	28.4	14.3	20.9	19.7
% Change 2000 to 2025	49.1	28.6	47.9	29.0	45.6	51.4

Source: Association of Bay Area Governments, 2001

3.7.1.5 Growth Inducement

Growth inducement in terms of transportation projects can be defined as the relationship between the proposed transportation project and growth within the project area. The impacts are difficult to quantify with a high degree of accuracy since the growth that happens after the project is constructed is usually indirect and occurs over a period of time. The relationship is frequently characterized as either one of facilitating planned growth or inducing unplanned growth.

Under CEQA, a project is considered growth inducing if it would directly or indirectly foster economic or population growth or the construction of additional housing (CEQA Guidelines §15126.2(d)). Examples of projects likely to have significant growth inducing impacts include extensions or expansions of public infrastructure systems beyond what is needed to serve project specific demand as well as development of new residential subdivisions or industrial parks in areas that are currently only sparsely developed or are undeveloped.

Widening Route 101 from four to six lanes to construct a high occupancy vehicle (HOV) lane system within the City is included in the Regional Transportation Plan, the Sonoma County General Plan, and the Draft 2001 Santa Rosa General Plan. This is mainly due to the record growth that occurred in Santa Rosa from the mid 1980's until now. Between 1980 and 2000, Santa Rosa's population grew from 101,700 to 158,600, an increase of nearly 56 percent. By 2020, Santa Rosa is anticipating to gain another 36,700 residents. Similar percentage increases are also anticipated with the number of households within the City. From 1980 to 2000, the number of households increased by approximately 48 percent. The Draft 2001 Santa Rosa General plan anticipates the addition of 18,340 households or another 31 percent by Year 2020. Jobs within Santa Rosa have grown at an even faster rate than population or households according to the Draft 2001 General Plan. From 1980 to 2000, the number of jobs within Santa Rosa grew from 55,930 to 109,980, an increase of nearly 97 percent. By Year 2020, another 29,420 jobs are anticipated to be added within the City (For additional information on projected growth in Sonoma County and its sub-areas, please see Chapter 3.9.1.4).

The regional growth projections would presumably be realized with or without the proposed project. The above projections are in recognition of broad, social/economic policies and trends that are anticipated to occur throughout this part of the Bay Area. The growth induced by the Route 101 widening project can be defined as the portion of projected growth within the project area and surrounding community that would occur should the proposed project be built, which would not occur absent the project. None of the approved or pending developments within the City are conditioned upon the construction of the proposed project. Also, both Sonoma County and Santa Rosa have growth management policies (such as the City's adopted Urban Growth Boundary) in place in order to avoid the potential for unplanned growth and the adverse affects associated with it. The UGB is viewed as a long-term strategy employed by the City and County to manage growth and development patterns. Additionally, the cities of Santa Rosa and Windsor and the County of Sonoma have specific plans and policies to protect agricultural lands and sensetive resources.

The proposed project would support future development closer to established areas given the fact that minimal right-of-way would be required for the proposed project. In-fill development would be facilitated due to the fact that this project enhances the existing freeway infrastructure versus constructing a similar facility elsewhere. Nevertheless, the magnitude and timing of future regional growth would be influenced by many variables including local, State, and national social/economic

factors as well as the presence of adequate infrastructure to support future planned growth. The proposed project would only increase roadway capacity. No increase in sewer capacity, water supply, or drainage capacity is associated with the proposed project. The 1989 Sonoma County General Plan, the 2002 Santa Rosa General Plan and the Windsor General Plan and their supporting environmental documents address the impacts of all areas of future growth. Before future growth could occur, proposed developments would have to obtain the appropriate environmental clearances addressing potential transportation, social, economic, physical, and biological impacts.

Should the traffic impacts from any other development project be determined to result in a negative impact, the City of Santa Rosa has the ability to exact impact fees from the developer in order to enhance the City's transportation system based on the proportional impact (Ken MacNab, Santa Rosa City Planner, personal communication 2002). Similar fees can also be imposed in the City of Windsor (http://ordlink.com/codes/windsor/index.htm.).

The proposed project would largely be constructed on land that is adjacent to Route 101, with the exception of a few parcels of land adjacent to College Avenue. The proposed project has been designed to respond to and accommodate the anticipated congestion on Route 101 over the next 20 years. Any development that results from construction of the proposed project would not directly or indirectly foster substantial economic or population growth, as development would not result in an expansion of existing urban services beyond what is needed for the proposed project.

3.7.1.6 Community Cohesion

According to Caltrans guidelines, community cohesion is the degree to which residents have a "sense of belonging" to their neighborhood, a level of commitment to the community, or a strong attachment to neighbors, groups, or institutions, usually as a result of continued association over time. Physical barriers such as major roadways or large open space areas often delineate communities. Cohesive communities are indicated by specific social characteristics such as long average lengths of residency, home ownership, frequent personal contact, ethnic homogeneity, high levels of community activity, and shared goals. Transportation projects may divide cohesive neighborhoods when they act as physical barriers or when residents perceive them as psychological barriers. A transportation project that is perceived as a physical or psychological barrier may isolate one portion of a homogeneous neighborhood

(Caltrans 1997a). The proposed project is located within the established and easily distinguishable Santa Rosa community.

Given the historical compact development of Santa Rosa, there are no easily identifiable neighborhoods within the City. The closest identifiable neighborhoods within the City are the historical preservation districts of McDonald, Cherry Street, Saint Rose, West-End, Railroad Square, and Olive Park. However, these districts were established to protect and preserve buildings of historical significance, not create identifiable sub-units of Santa Rosa (Dyett and Bhatia 2001). The primary activity node is the downtown area, with several mixed-use developments along several corridors leading to downtown. The mixed-use development corridors exist along Mendocino Avenue, Santa Rosa Avenue, Sebastopol Avenue, and North Dutton Avenue. Small scale commercial centers are located throughout the City to provide daily shopping needs for residents.

3.7.1.7 Applicable Policies

According to both the Transportation Element of the 1989 Sonoma County General Plan and the Transportation Element of the Draft 2001 Santa Rosa General Plan, the County/City has identified the need for securing local, regional, State, and Federal funding to widen Route 101. The City's Transportation Element goes on to state the need for improving cross-town (east/west) traffic as well as improving bicycle/pedestrian facilities. The proposed project is consistent with the goals and policies of the 1989 Sonoma County General Plan/Draft 2001 Santa Rosa General Plan.

3.7.2 Environmental Consequences

3.7.2.1 Displacements and Relocations

The proposed project would affect a total of 20 individual properties. The proposed project would require additional right-of-way at three locations: 1) The Burbank Elementary School for the construction of a new collector-distributor road on northbound Route 101 between the SR-12 on-ramp and the 3rd Street downtown off-ramp; 2) the area of 6th Street where it intersects Route 101 for the new under crossing; and 3) along College Avenue between Davis Street and Cleveland Avenue for the construction of new traffic lanes as well as bicycle/pedestrian facilities. The

proposed project would impact two unimproved tracts of land, four residential properties, four school related parcels at the Burbank Elementary School, and 10 commercial properties (Caltrans 2001b).

As a result of the proposed project a total of seven properties (four residential and three commercial) would need to be fully acquired. The three commercial lots and three of the four residential parcels are located along College Avenue, while the remaining property is on 6th Street (Caltrans 2001b).

People living in the four properties to be acquired for this project would need to relocate. Using the Year 2000 U.S. Census figure of 2.897 average persons per household within Santa Rosa, the project would result in the displacement of an estimated 12 persons. There is adequate housing stock available in Santa Rosa to accommodate the relocation of the displaced residents.

Three commercial businesses totaling 890 sq m (9,580 sq ft) would be fully displaced by this project (Caltrans 2001b). The businesses housed there are a pest control service, the administrative offices for the pest control service, and a cabinet supply store. These businesses employ about 20 people. In 1995, Santa Rosa had an estimated 2.072 million sq m (22.3 million sq ft) of commercial floor area (Ken MacNab, Santa Rosa City Planner, personal communication 2001). The anticipated loss in commercial space as a result of this project would be approximately 0.0004 percent of the total commercial stock in the City.

Portions of an additional 14 properties (two vacant, four school related, seven commercial, and one residence) would need to be acquired. One of the vacant lots is situated along 5th Street, while the other is located along Davis Street. Four parcels are part of the Burbank Elementary School and adjacent to northbound Route 101. All seven of the commercial properties as well as the one residence are located along College Avenue. The partial takes would not require any residential or commercial structures to be demolished. However, several business signs, outdoor lighting, landscaping, and one public restroom would have to be relocated (Caltrans 2001b).

3.7.2.2 Community Facilities

The proposed project would remove the northern pedestrian over crossing at the Route 101/SR-12 interchange, which is adjacent to Santa Rosa Creek and the Burbank Elementary School. A new bicycle/pedestrian facility would be constructed under the new Santa Rosa Creek Bridge to be incorporated with the existing Prince Memorial Greenway. The pedestrian over crossing would be left in place until the

new bicycle/pedestrian under crossing was completed. Within Chapter 3 (Traffic/Transportation), Sections 3.11.2.2 and 3.11.3.2 contain a more detailed discussion of this aspect of the proposed project.

Also, a small portion of the Burbank Elementary School playground would be acquired to accommodate construction of a new northbound collector-distributor road. See Appendix C (Section 4(f) Evaluation) of this document for more details about impacts on the school. The new collector-distributor road would require approximately 8.0 m (25 ft) of the existing playground surface at its widest point. A soundwall is proposed at the edge of the new State right-of-way to attenuate noise at the school.

3.7.2.3 Community Cohesion

Because the proposed project primarily widens an existing freeway within its median, the project would not reduce the cohesiveness of the Santa Rosa community. Connectivity within the city would be improved with the addition of a new 6th Street undercrossing of Route 101. The new under crossing would improve traffic and bicycle/pedestrian circulation through this area of the community. Chapter 3, Section 11 (Traffic/Transportation) contains a more detailed discussion of this aspect of the proposed project.

3.7.3 Mitigation Measures

3.7.3.1 Displacements and Relocations

All relocations associated with this project would be in conformance with the Federal Uniform Relocation Assistance and Real Estate Property Acquisition Act of 1970, as amended. Caltrans will provide relocation advisory assistance to any person, business, farm, or non-profit organization that is displaced. Caltrans will assist displacees in obtaining a comparable replacement by providing current and continuing information on the availability and prices of both for sale and rental units that are decent, safe, and sanitary. Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice.

Relocation assistance payments and counseling will be provided to persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as Amended, to ensure adequate relocation and a

decent, safe, and sanitary home for displaced residents. All eligible displacees will be entitled to moving expenses. All benefits and services will be provided equitably to all residential and business relocatees without regard to race, color, religion, age, national origins and disability as specified under Title VI of the Civil Rights Act of 1964.

Given the small number of full displacements as a result of the proposed project combined with the size and diversity of the Santa Rosa community, adequate residential and commercial space is available within general proximity of the site for relocations (See Appendix F for a description of Caltrans' relocation policies).

3.7.3.2 Community Facilities

None required.

3.7.3.3 Community Cohesion

None required.

3.8 Farmlands/Agricultural Lands

There is no land zoned for agricultural use within the project.

3.9 Community Impacts (Social, Economic) and Environmental Justice

3.9.1 Affected Environment

3.9.1.1 Population and Ethnicity

Data on population and ethnicity are based on the Year 2000 U.S. Census. There are 15 block groups (a standard geographical unit of measurement defined by the U.S. Census Bureau) adjacent to the project study area, which are depicted on Figure 3.9-1 and listed in Table 3.9-1. Data for Sonoma County and the City of Santa Rosa are listed on the table for analysis and comparative purposes. The study area is urbanized and entirely within the City, with land uses consisting of office, commercial, light industrial, and residential related uses surrounding the project site.

As shown in Table 3.9-1, the predominant racial group within the immediate study area is White at 49.5 percent in Year 2000. Tract 1514.02 BG 1 and Tract 1531.01

BG 5 had the lowest percentages of White population, at seven percent, while Tract 1528.02 BG 3 had the highest percentage of White persons at 87.4. For the Census block groups within the study area, the percentages of African American populations ranged from 1.1 percent to a high of nearly 24 percent. The block group with the largest percentage of African Americans in Year 2000 was Tract 1530.03 BG 2 (at 23.9 percent). Most other block groups averaged around two percent African American. The block group with the largest percentage of Latino population was Tract 1531.01 BG 5 (at 50.4 percent), while the largest concentration of Asian/Pacific Islander persons occurred in Tract 1521 BG 3 (at 9.6 percent). Within the 15 block groups studied, other populations (American Indian, Alaska Native, etc.) accounted for approximately 15.9 percent in Year 2000. The largest percentage of other races occurred in Tract 1531.01 BG 5 at 38.1 percent with Tract 1514.02 BG 1 following at 36.7 percent.

3.9.1.2 Housing and Economics

The housing and economic data presented in Table 3.9-2 are based on the Year 2000 U.S. Census. Data for Sonoma County and the City of Santa Rosa are listed in the table for analysis and comparative purposes. Figure 3.9-1 shows the15 block groups adjacent to the project area.

In Year 2000, the study area combined block groups contained 7,789 housing units out of a City total of 57,514. Also in Year 2000, the median household income levels for the 15 study area block groups ranged from a low of $20,571 (Tract 1519 BG 4) to a high of $55,369 (Tract 1530.01 BG 3). However, 14 of the 15 study area block groups were below both the City and County median household income figures for Year 2000. The lone exception was Tract 1530.01 BG 3 with a median household income of $55,369.

SONOMA 101 WIDENING

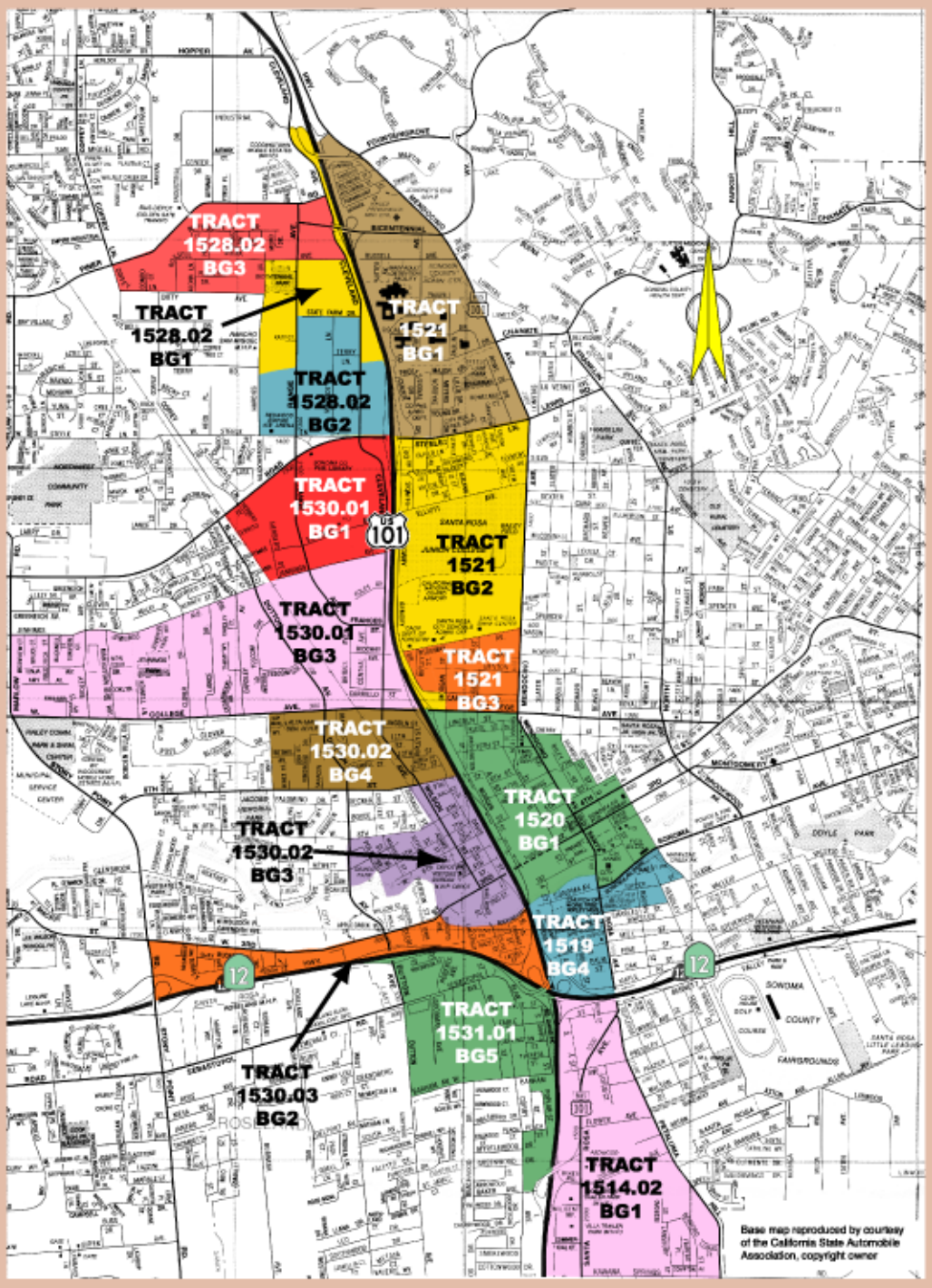

Figure 3.9-1: Year 2000 Census Tract Block Group Boundaries

Caltrans

AudioVisual Multimedia Graphics CT1179 08/2002

Table 3.9-1. Population and Ethnic Characteristics

	Total	%	White	%	African American	%	Latino	%	Asian/ Pacific Islander	%	Other	%
Tract 1514.02 BG 1	2,232	100.0	156	7.0	25	1.1	1,062	47.6	169	7.6	820	36.7
Tract 1519 BG 4	965	100.0	719	74.5	36	3.7	177	18.4	0	0.0	33	3.4
Tract 1520 BG 1	1,454	100.0	927	63.7	75	5.2	264	18.1	30	2.1	158	10.9
Tract 1521 BG 1	1,389	100.0	740	53.3	72	5.2	363	26.1	24	1.7	190	13.7
Tract 1521 BG 2	922	100.0	609	66.0	10	1.1	136	14.8	37	4.0	130	14.1
Tract 1521 BG 3	907	100.0	561	61.9	23	2.5	107	11.8	87	9.6	129	14.2
Tract 1528.02 BG 1	868	100.0	427	49.2	64	7.4	215	24.8	82	9.4	80	9.2
Tract 1528.02 BG 2	1,538	100.0	823	53.5	28	1.8	438	28.5	67	4.4	182	11.8
Tract 1528.02 BG 3	1,004	100.0	878	87.4	19	1.9	58	5.8	40	4.0	9	0.9
Tract 1530.01 BG 1	1,174	100.0	805	68.6	19	1.6	180	15.3	46	3.9	124	10.6
Tract 1530.01 BG 3	2,167	100.0	1,208	55.7	42	2.0	535	24.7	91	4.2	291	13.4
Tract 1530.02 BG 4	918	100.0	714	77.7	21	2.3	96	10.5	0	0.0	87	9.5
Tract 1530.02 BG 3	949	100.0	672	70.8	26	2.7	204	21.5	22	2.4	25	2.6
Tract 1530.03 BG 2	1,085	100.0	357	32.9	260	23.9	388	35.8	0	0.0	80	7.4
Tract 1531.01 BG 5	2,049	100.0	143	7.0	51	2.5	1,034	50.4	41	2.0	780	38.1
Combined Block Groups	19,621	100.0	9,721	49.5	771	3.9	5,275	26.9	736	3.8	3,118	15.9
City of Santa Rosa	147,532	100.0	92,855	62.9	3,421	2.3	27,991	19.0	5,789	3.9	17,476	11.9
Sonoma County	458,614	100.0	313,202	68.3	6,486	1.4	79,624	17.4	14,820	3.2	44,482	9.7

Notes: BG = Block Group Source: U.S. Census Bureau 2000.

During the 1980's, Sonoma County experienced strong job growth. With the recession of the early 1990's, Sonoma County saw minimal job losses in the first half of the decade and actually experienced an increase in jobs mostly in the telecommunications and wine making industries. The Association of Bay Area Governments (ABAG) has summarized employment trends in its *Projections 2002, Forecasts for the San Francisco Bay Area to the Year 2025*. Between Year 1990 and Year 2000, Santa Rosa experienced an increase of 16,920 jobs, a 17 percent increase.

Table 3.9-2. Housing and Economic Characteristics

	Housing Units	1999 Median Household Income
Tract 1514.02 BG 1	826	$37,212
Tract 1519 BG 4	525	$20,571
Tract 1520 BG 1	491	$29,722
Tract 1521 BG 1	401	$23,333
Tract 1521 BG 2	338	$41,000
Tract 1521 BG 3	381	$43,606
Tract 1528.02 BG 1	481	$30,750
Tract 1528.02 BG 2	958	$31,883
Tract 1528.02 BG 3	399	$41,577
Tract 1530.01 BG 1	755	$26,125
Tract 1530.01 BG 3	702	$55,369
Tract 1530.02 BG 4	262	$41,136
Tract 1530.02 BG 3	376	$46,250
Tract 1530.03 BG 2	328	$44,583
Tract 1531.01 BG 5	566	$37,847
Combined Block Groups	7,789	$36,731
City of Santa Rosa	57,514	$50,931
Sonoma County	183,153	$53,076

Notes: BG = Block Group Source: U.S. Census Bureau 2000.

Between Year 1990 and Year 2000, the number of employed residents in the City of Santa Rosa increased by 15,081, an addition of nearly 23 percent. Over the same time period, jobs in Sonoma County grew by 20 percent. The proportion of employed residents in Sonoma County during that decade was slightly less than the City at 18 percent.

According to ABAG, the Santa Rosa area and Sonoma County are projected to be high job growth areas within the region, with the services sector experiencing the largest percentage of growth (Association of Bay Area Governments [ABAG] 2001).

Over the last several years, the San Francisco Bay Area has produced substantially more jobs than housing units, leading to higher costs for renting or buying a home. A key factor in home choice is the location of affordable housing in relation to the place of work or amenities. People seeking affordable housing must often commute great distances to and from work. The Santa Rosa area is no exception. At the present time, ABAG estimates the number of jobs anticipated to be produced in the Santa Rosa area will outnumber the homes constructed (ABAG 2001).

3.9.1.3 Summary of Social and Economic Factors

The Census data in Table 3.9-1 indicate that minority populations were primarily found in the northernmost and southernmost portions of the study area, either north of Steele Lane or south of College Avenue. Specifically, African American persons were most likely to live just north of SR-12 east of Route 101, while Latino persons were fairly evenly distributed throughout the study area, with heavier concentrations in the southern portion of the study area. Asian/Pacific Islander persons were likely to live between College Avenue and Steele Lane in the northern and northwestern portions of the study area. Other ethnic populations identified as in the Year 2000 Census were most likely to live south of SR-12 on both sides of Route 101.

The poverty level is defined by the U.S. Department of Health and Human Services for Year 1999 as $16,700 for a family of four living in the lower 48 states. The U.S. Census Bureau used a poverty-level income of $17,029 for a family of four for 1999. Table 3.9-2 shows that, when income of the neighborhood is considered as a whole, none of the project area block groups have a median household income under either of those poverty level definitions. When families are looked at individually, rather than as part of a block group, Table 3.9-3 shows that hundreds of families near the project area have incomes below the poverty level. (Since Table 3.9-3's data comes from the U.S. Census, it uses the Census Bureau's definition of the poverty level.)

Table 3.9-3. Poverty Status for Families and Individuals

	Total Number Of Families	1999 Median Family Income	Percentage of Families Below Poverty Level	Percentage of Persons Below Poverty Level
Tract 1514.02 BG 1	403	$47,386	15.1	13.5
Tract 1519 BG 4	158	$42,143	15.8	15.3
Tract 1520 BG 1	119	$44,306	12.6	32.7
Tract 1521 BG 1	213	$38,021	18.8	21.4
Tract 1521 BG 2	170	$56,563	8.8	19.3
Tract 1521 BG 3	197	$42,917	0	5.9
Tract 1528.02 BG 1	175	$43,021	9.7	13.1
Tract 1528.02 BG 2	285	$45,129	2.8	10.7
Tract 1528.02 BG 3	268	$41,667	4.1	4.4
Tract 1530.01 BG 1	215	$43,472	0	6.4
Tract 1530.01 BG 3	442	$56,852	8.4	10.6
Tract 1530.02 BG 4	207	$58,125	0	3.3
Tract 1530.02 BG 3	150	$41,818	11.3	27.0
Tract 1530.03 BG 2	257	$44,750	9.7	13.2
Tract 1531.01 BG 5	407	$39,353	13.0	10.9
Combined Block Groups	3,666	$45,702	8.8	13.5
City of Santa Rosa	35,420	$59,659	5.1	8.5
Sonoma County	113,645	$61,921	4.7	8.1

Notes: BG = Block Group

Source: U.S. Census Bureau 2000.

3.9.1.4 Environmental Justice

On February 11, 1994, President William J. Clinton signed Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority and Low Income Populations (59 FR 7629). EO 12898 requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of federal programs on minority or low-income populations. The general purpose of EO 12898 is to foster non-discrimination in federal programs and to provide minority and low-income communities greater opportunities for public participation in and access to public information regarding human health and environmental issues (United States Department of Transportation [USDOT] 1994). Potential environmental justice areas are identified in the screening process to ensure that these communities have access to concise and clear information sufficient to effectively participate in the public involvement process. This helps to ensure that these communities are not disproportionately affected by a project.

EO 12898 was designed to supplement Title VI of the Civil Rights Act of 1964 and the resulting regulations for the U.S. Department of Transportation (USDOT) implementing this Act; Title VI prohibits discriminatory practices in programs receiving federal funding (USDOT 1994). In addition, EO 12898 is supplemented by

more than 30 federal statutes, regulations, executive orders, and directives regarding nondiscrimination. Appendix B contains a copy of the California Department of Transportation (Caltrans) Title VI policy statement.

A general screening to identify potential areas having disproportionate minority and low-income population characteristics was conducted for this EA/EIR. For this report, U.S. Census data for Year 2000 was used to identify minority populations (see Table 3.9-1: Population and Ethnic Characteristics) and data for Year 2000 was used to identify low-income populations (see Table 3.9-2 and Table 3.9-3). Supplemental data was used from both the Draft Santa Rosa 2000 General Plan as well as *Projections 2002, Forecasts for the San Francisco Bay Area to the Year 2025* to augment the Year 2000 Census data. The Census block group level data, instead of the census tract or block level, was used because it provides the best combination of demographic accuracy and data accessibility for the project site and study area associated with this proposed project.

Minority Populations. According to the U.S. Bureau of Census, minority populations are those groups that include African Americans, American Indians, Asians, Pacific Islanders, Latinos, Eskimos, Aleuts, and other races. These population categories were used to determine the minority percentage for each block group in the study area as well as the City and County.

In Year 2000, members of minority groups comprised about 32% of Sonoma County residents and about 37% of Santa Rosa residents. According to Table 3.9-1, four of the 15 Census tract block groups had minority group member populations of more than 50%. They are Tract 1514.02 BG 1 and Tract 1528.02 BG 1 near the north end of the project, and Tract 1530.03 BG 2and Tract 1531.01 BG 5 near the south end of the project. Minority populations are present in the project area, and EO 12898 directs the project's government sponsors to determine whether the project could subject the populations to disporportionate adverse impacts.

Low-Income Populations. While the median block group incomes shown in Section 3.9.1.3 do not fall below federal definitions of the poverty level, there are families and individuals in the project area with incomes under the poverty level, as shown in Table 3.9-3.

Public Involvement. The proposed project has had wide-based and continual public participation activities throughout its life. Two public meetings have already been held as a part of this project, the first in November 2000 and the second in November

2001. Both of these meetings were well received and meaningful input was taken from the participants. Information flyers were also distributed at both meetings. A special meeting was held with both the City and the Santa Rosa School District in July 1999 to discuss the impacts at the Burbank Elementary School from the proposed project. Also, Caltrans has positioned a mobile display unit at numerous locations throughout Santa Rosa from May 2001 through July 2002 to display general information about the project. Caltrans has also developed a web page link off of the District 4 home page where citizens can obtain the latest information about the project. Public involvement efforts are discussed in greater detail of Chapter 6 (Public Involvement Summary).

3.9.2 Environmental Consequences

3.9.2.1 Population and Ethnicity

The proposed project would widen Route 101 to accommodate HOV lanes as well as increasing the capacity of the College Avenue and Steele Lane interchanges to improve overall freeway operations. This project could have the potential to attract new residential and commercial development near the project vicinity, which could lead to a small increase in the local population. However, because of the relatively small scale of the improvements, it is unlikely that they would lead to substantial population growth in the area.

Four residential structures with about 12 occupants would be displaced by the proposed project and no adverse effect on minority populations is expected to occur Displacement impacts are discussed in greater detail in Chapter 3, Section 6 (Land Use and Planning).

3.9.2.2 Housing and Economics

No established or planned development would be disrupted by the proposed project. No appreciable change in employment is forecast other than during the construction period when a beneficial effect would occur.

3.9.2.3 Environmental Justice

As was discussed in Section 3.9.1.5, low-income and minority populations are found in the project area. Because the proposed project would alter an existing freeway, it does not have the potential to cause many kinds of local impacts. For instance, it would not divide an established community. Potential impacts to neighboring

populations include noise and air quality impacts and displacement and relocation impacts. (Displacement and relocation impacts in general are discussed in Sections 3.7.2.1 and 3.7.3.1. Caltrans' Relocation Assistance Program and Benefits are described in Appendix F.)

Noise and air quality impacts are distributed evenly through the project area and are not concentrated in any area of minority or low-income residents. Noise abatement measures in particular are recommended and would be expected to prevent disproportionate impacts to any area. The anticipated business displacements and three of the four residential displacements are in areas that are not identified as low-income or minority neighborhoods. The fourth anticipated residential displacement would be on 6th Street, in a block group with a high proportion of low-income individuals. Still, one out of four residential displacements occurring in a low-income block group does not represent a disproportionate impact.

Specific businesses that might be displaced, according to the draft project design, include a cabinet supply shop and a pest control service with its associated administrative offices. The businesses employ about 20 people. These businesses are not known to be connected to any identified community.

Based on the above discussion, the proposed project would not cause disproportionately high and adverse effects on on any minority or low-income populations as discussed in E.O. 12898 regarding environmental justice.

3.9.3 Mitigation Measures

3.9.3.1 Population and Ethnicity
None required.

3.9.3.2 Housing and Economics
None required.

3.9.3.3 Environmental Justice
None required.

3.10 Utilities/Emergency Services

3.10.1 Affected Environment

3.10.1.1 Utilities

Water Supply. Santa Rosa's drinking water is drawn from the nearby Russian River watershed area and is delivered to the City by the Sonoma County Water Agency (SCWA) and the City of Santa Rosa Utilities Department.

Wastewater. The Laguna Subregional Wastewater Treatment Plant (WTP) provides collection, treatment, and disposal to the City of Santa Rosa as well as Rohnert Park, Cotati, Sebastopol, and the South Park Sanitation District.

Solid Waste. Empire Waste Management, Inc. provides non-hazardous solid waste removal for the City of Santa Rosa. Santa Rosa disposes of its solid waste in the Sonoma County Central Landfill. Currently, the Central Landfill has enough capacity to meet the County's needs through May 2006. Sonoma County is in the process of obtaining the necessary permits to expand the landfill to accommodate waste through 2014 (Dyett & Bhatia 2001).

Stormwater Management. The City of Santa Rosa Utilities Department manages the integrated system of curbside gutters, underground pipelines, drainage ditches, and creeks that storm water is deposited in. Several storm water detention facilities are utilized to reduce potential downstream impact from erosion and flooding. Santa Rosa's storm water drains through six drainage basins into the Laguna de Santa Rosa. Santa Rosa Creek serves as the largest drainage basin for the City through a system of six major creeks and several smaller tributaries. The City's storm water discharge and maintenance activities are regulated and monitored through a NPDES Permit.

Gas and Electricity. Natural gas and electric service is provided to Santa Rosa by Pacific Gas and Electric, a publicly owned corporation regulated by the California Public Utilities Commission.

Telecommunications and Cable. Southwestern Bell and Verizon provide telecommunications to the Santa Rosa area, while AT&T Broadband provides cable television services.

3.10.1.2 Emergency Services

Police Protection. The Santa Rosa Police Department (SRPD) provides protection for life and property within the City. SRPD operates one main station located on Sonoma Avenue approximately 1.6 km (1 mile) from Route 101 and one sub-station at the Santa Rosa Plaza.

The Sonoma County Sheriff's Department (SCSD) provides protection for life and property in approximately 1,500 square miles of unincorporated Sonoma County. The main Sonoma County Sheriff's office is located off of Ventura Avenue, approximately 2.5 km (1.5 miles) north of the Route 101/Steele Lane interchange. The Roseland Sub-Station is located off of Sebastopol Road, approximately 3 km (1.9 miles) from the Route 101/SR-12 interchange.

Fire Protection. The Santa Rosa Fire Department (SRFD) provides emergency first responder services within the City. SRFP operates eight stations, with the main station located on Sonoma Avenue approximately 1.6 km (1 mile) from Route 101.

Ambulance Service. Sonoma Life Support provides emergency medical service in Santa Rosa.

3.10.1.3 Utilities

The project might affect overhead utilities with joint power and telecommunication lines; underground gas, electric, and telecommunication lines; and underground sewer and water lines. The majority of these utilities are located in and around the interchange areas on Route 101 through Santa Rosa.

The proposed project would not require new water supplies to service the project and would not require additional wastewater treatment services or additional storm water services. Replacement of the existing freeway drainage system may be required.

3.10.1.4 Emergency Services

No negative impacts to Santa Rosa police, fire, or emergency services as well as Sonoma County Sheriff services are anticipated with the proposed project. The addition of a new 6th Street under crossing and the increase in capacity of the College Avenue and Steele Lane interchanges would provide additional pathways for emergency vehicles to reach their destinations, resulting in lower response times.

3.10.2 Mitigation Measures

3.10.2.1 Utilities

Utilities would be relocated without interruption of service.

3.10.2.2 Emergency Services

No mitigation required.